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# United States Patent [19]

## Taylor-McCord

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[54] WOUND THERAPEUTIC MIXTURE
CONTAINING MEDICAL GRADE
HYALURONIC ACID AND TISSUE CULTURE
GRADE PLASMA-FIBRONECTIN IN A
DELIVERY SYSTEM THAT CREATES A
MOIST ENVIRONMENT WHICH
SIMULATES IN UTERO HEALING

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[51] **Int. Cl.**<sup>6</sup> ...... **A61K 38/36**; A61K 35/14; C08B 37/08; C07K 14/75

[56] References Cited

### U.S. PATENT DOCUMENTS

3,887,703	6/1975	Manoussos	424/581
4,983,580	1/1991	Gibson	514/2
5,036,056	7/1991	Kludas	. 514/54

## OTHER PUBLICATIONS

Br. J. Obstet. Gynaecol. "Biochemical Composition of Amniotic Fluid and Extraembryonic Coelomic Fluid In The First Trimester of Pregnancy" Campbell et al. 99: 563–565 1992.

Clark "Cutaneous Wound Repair" In Physiology, Biochemistry & Molecular Biology of The Skin ed. Goldsmith pp. 576–601 1991.

Doillon et al. "Collagen-based Wound Dressing: Effects of Hyaluronic Acid & Fibronectin on Wound Healing" Biomaterials 7 3–8 1986.

Repesh et al. "Fibronectin Involvement in Granulation Tissue & Wound Healing In Rabbits" J Histochem Cytochem 30(4) 351–358 1982.

Mast et al. "Scarless Wound Healing In The Mammalian Fetus" Surg. Gyn. Ob. 174(5) 441–451. 1992.

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#### [57] ABSTRACT

A wound therapeutic mixture is formulated to work alone or in combination with human growth factors, and is useful for treatment of burns, open sores, incisions, and wounds. The mixture is comprised of a medical grade hyaluronic acid (hyaluronan) and tissue culture grade plasma-fibronectin in combination with calcium, phosphate, uric acid, urea, sodium, potassium, chloride, and magnesium, all elements found in amniotic fluid. The mixture creates a moist healing environment which simulates the fetal in utero wound healing matrix. The therapeutic mixture can be sterile or contain an FDA acceptable preservative system. The compositions may be in the form of a liquid, creme, ointment, gel, hydrogel, hydrocolloid or dressing.

15 Claims, 1 Drawing Sheet